

L6 ANSWER 4 OF 5 MEDLINE
 ACCESSION NUMBER: 1998219441 MEDLINE
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 TITLE: Modulation of pro-inflammatory cytokine biology by
 unsaturated fatty acids.
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 SOURCE: ZEITSCHRIFT FUR ERNAHRUNGSWISSENSCHAFT, (1998) 37 Suppl 1
 57-65. Ref: 39
 Journal code: XTU. ISSN: 0044-264X.
 PUB. COUNTRY: GERMANY: Germany, Federal Republic of
 Journal; Article; (JOURNAL ARTICLE)
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 ENTRY MONTH: 199807
 ENTRY WEEK: 19980704

AB The production of pro-inflammatory cytokines, such as interleukins 1 and
 6

and tumour necrosis factors, occurs rapidly following trauma or invasion
 of the body by pathogenic organisms. The cytokines mediate the wide range
 of symptoms associated with trauma and infection, such as fever,
 anorexia,

tissue wasting, acute phase protein production and
 immunomodulation. In part, the symptoms result from a co-ordinated
 response, in which the immune system is activated and nutrients released,
 from endogenous sources, to provide substrate for the immune system.
 Although the cytokine mediated response is an essential part of the
 response to trauma and infection, excessive production of

pro-inflammatory
 cytokines, or production of cytokines in the wrong biological context,
 are

associated with mortality and pathology in a wide range of diseases, such
 as malaria, sepsis, rheumatoid arthritis, inflammatory bowel disease,
 cancer and AIDS. Cytokine biology can be modulated by antiinflammatory
 drugs, recombinant cytokine receptor antagonists and nutrients. Among the
 nutrients, fats have a large potential for modulating cytokine biology. A
 number of trials have demonstrated the anti-inflammatory effects of fish
 oils, which are rich in n-3 polyunsaturated fatty acids, in rheumatoid
 arthritis, inflammatory bowel disease, psoriasis and asthma. Animal
 studies, conducted by ourselves and others, indicate that a range of fats
 can modulate pro-inflammatory cytokine production and actions. In summary
 fats rich in n-6 polyunsaturated fatty acids enhance IL1 production and
 tissue responsiveness to cytokines, fats rich in n-3 polyunsaturated
 fatty

acids have the opposite effect, monounsaturated fatty acids decrease
 tissue responsiveness to cytokines and IL6 production is enhanced by
 total

unsaturated fatty acid intake. There are a large number of potential
 cellular mechanisms which may mediate the effects observed. The majority
 relate to the ability of fats to alter the composition of membrane
 phospholipids. As a consequence of alterations in phospholipid
 composition, membrane fluidity may change, altering binding of cytokines
 to receptors and G protein activity. The nature of substrate for various
 signalling pathways associated with cytokine production and actions may
 also be changed. Consequently, alterations in eicosanoid production and

activation of protein kinase C may occur. We have examined a number of these potential mechanisms in peritoneal macrophages of rats fed fats with

a wide range of fatty acid composition. We have found that the total C18:2

and 20:4 diacyl species of phosphatidylethanolamine in peritoneal macrophages relates in a positive curvilinear fashion with dietary linoleic acid intake; that TNF induced IL1 and IL6 production relate in a positive curvilinear fashion to linoleic acid intake; that **leukotriene** B4 production relates positively with dietary linoleic acid intake over a range of moderate intakes and is suppressed at high intakes, while PGE2 production is enhanced. There was no clear relationship between linoleic acid intake and membrane fluidity, however fluidity was influenced in a complex manner by the type of fat in the diet, the period over which the fat was fed and the presence of absence

of

TNF stimulation. None of the proposed mechanisms, acting alone, can explain the positive effect of dietary linoleic acid intake on pro-inflammatory cytokine production. However each may be involved, in part, in the modulatory effects observed.

SO International Journal of Cancer, (1 July, 2000) Vol. 87, No. 1, pp.
95-100. print.
ISSN: 0020-7136.

N 1997:389146 CAPLUS

DN 127:5195

TI Alkylxanthine phosphonates and alkylxanthine phosphine oxides and their
use as medicines

IN Billen, Guenter; Okyayuz-baklouti, Ismahan; Anagnostopoulos, Hristo;
Muellner, Stefan

PA Hoechst A.-G., Germany

SO Eur. Pat. Appl., 57 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 771813	A1	19970507	EP 1996-116861	19961021
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 19540798	A1	19970507	DE 1995-19540798	19951102
CA 2189222	AA	19970503	CA 1996-2189222	19961030
CN 1158855	A	19970910	CN 1996-122094	19961030
US 5728686	A	19980317	US 1996-741591	19961031
JP 09124671	A2	19970513	JP 1996-305524	19961101

2000321434 MEDLINE

DN 20321434

TI Effect of the specific cyclooxygenase-2
inhibitor meloxicam on tumour growth and cachexia in a
murine model.

AU Hussey H J; Tisdale M J

CS Pharmaceutical Sciences Research Institute, Aston University, UK.

SO INTERNATIONAL JOURNAL OF CANCER, (2000 Jul 1) 87 (1) 95-100.

Journal code: GQU. ISSN: 0020-7136.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Cancer Journals; Priority Journals

EM 200009

N 1999:404850 CAPLUS

DN 131:39735

TI Method for inhibiting cyclooxygenase-2 and tumor necrosis factor alpha
with modified tetracyclines

IN Amin, Ashok; Abramson, Steven

PA New York University, USA

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9930720	A1	19990624	WO 1998-US26870	19981217

RC261-A1

L5 ANSWER 6 OF 24 MEDLINE

AN 2000210706 MEDLINE

DN 20210706

TI Effect of cyclooxygenase and nitric oxide synthase inhibitors on tumor growth in mouse tumor models with and without cancer cachexia related to prostanoids.

AU Cahlin C; Gelin J; Delbro D; Lonnroth C; Doi C; Lundholm K

CS Department of Surgery, Sahlgrenska University Hospital, Goteborg, Sweden.

SO CANCER RESEARCH, (2000 Mar 15) 60 (6) 1742-9.

Journal code: CNF. ISSN: 0008-5472.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

RC 261.A2

5 ANSWER 19 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1999:441597 BIOSIS

DN PREV199900441597

TI Expression of IL-1beta, IL-6, TNF-alpha and Cox-2 in the brain of tumor bearing mice with systemic inflammation and progressive anorexia-cachexia.

AU Wang, Wenhua (1); Lundholm, Kent (1); Svanberg, Elisabeth (1)

CS (1) Dept of Surgery, Sahlgrenska University Hospital, Goteborg Sweden

SO Journal of Interferon and Cytokine Research, (Sept., 1999) Vol. 19, No. SUPPL. 1, pp. S153.

Meeting Info.: Meeting of the International Society for Interferon and Cytokine Research with the participation of the European Cytokine Society Paris, France September 5-9, 1999 European Cytokine Society

ISSN: 1079-9907.

DT Conference

LA English

5 ANSWER 18 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS

AN 2000:188632 BIOSIS

DN PREV200000188632

TI Effect of cyclooxygenase and nitric oxide synthase inhibitors on tumor growth in mouse tumor models with and without cancer cachexia related to prostanoids.

AU Cahlin, Christian; Gelin, Johan; Delbro, Dick; Lonnroth, Christina; Doi, Chiharu; Lundholm, Kent (1)

CS (1) Department of Surgery, Sahlgrenska University Hospital, S-413 45, Goteborg Sweden

SO Cancer Research, (March 15, 2000) Vol. 60, No. 6, pp. 1742-1749.

ISSN: 0008-5472.

DT Article

LA English

SL English

L5 ANSWER 17 OF 24 BIOSIS COPYRIGHT 2001 BIOSIS

AN 2000:333291 BIOSIS

DN PREV200000333291

TI Effect of the specific cyclooxygenase-2 inhibitor meloxicam on tumour growth and cachexia in a murine model.

AU Hussey, H. J.; Tisdale, M. J. (1)

CS (1) Pharmaceutical Sciences Research Institute, Aston University, Birmingham, B47ET UK

MS + 2000 + 188632 + 188632